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TECH CENTER 1600/2900

## RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/485,323

DATE: 08/06/2001

TIME: 08:56:04

Input Set : A:\SEQUENCE LISTING6056-236.txt

Output Set: N:\CRF3\08062001\I485323.raw

ENTERED

5 <110> APPLICANT: Niewiarowski, Stefan  
 7 Marcinkiewicz, Cezary  
 9 Temple University, of the Commonwealth System of Higher Education  
 13 <120> TITLE OF INVENTION: EC-3, An Inhibitor of Alpha 4 Beta 1 and Alpha 4 Beta 7  
 15 Integrins  
 19 <130> FILE REFERENCE: 6056-236PC  
 C--> 23 <140> CURRENT APPLICATION NUMBER: US/09/485,323  
 C--> 25 <141> CURRENT FILING DATE: 2000-02-07  
 29 <150> PRIOR APPLICATION NUMBER: 60/055,825  
 31 <151> PRIOR FILING DATE: 1997-08-15  
 35 <150> PRIOR APPLICATION NUMBER: 60/055,957  
 37 <151> PRIOR FILING DATE: 1997-08-18  
 41 <160> NUMBER OF SEQ ID NOS: 20  
 45 <170> SOFTWARE: PatentIn Ver. 2.0  
 49 <210> SEQ ID NO: 1  
 51 <211> LENGTH: 24  
 53 <212> TYPE: PRT  
 55 <213> ORGANISM: Echis carinatus  
 59 <220> FEATURE:  
 61 <221> NAME/KEY: VARIANT ✓  
 63 <222> LOCATION: (11) ✓  
 65 <223> OTHER INFORMATION: K or T  
 69 <220> FEATURE:  
 71 <221> NAME/KEY: UNSURE ✓  
 73 <222> LOCATION: (6) ✓  
 75 <223> OTHER INFORMATION: preliminary amino acid sequence  
 79 <220> FEATURE:  
 81 <221> NAME/KEY: UNSURE ✓  
 83 <222> LOCATION: (7) ✓  
 85 <223> OTHER INFORMATION: preliminary amino acid sequence  
 89 <220> FEATURE:  
 91 <221> NAME/KEY: UNSURE ✓  
 93 <222> LOCATION: (12) ✓  
 95 <223> OTHER INFORMATION: preliminary amino acid sequence  
 99 <220> FEATURE:  
 101 <221> NAME/KEY: UNSURE ✓  
 103 <222> LOCATION: (20) ✓  
 105 <223> OTHER INFORMATION: preliminary amino acid sequence  
 109 <400> SEQUENCE: 1  
 W--> 111 Asn Ser Val His Pro Xaa Xaa Asp Pro Val Xaa Xaa Glu Pro Arg Glu  
 113 1 5 10 15  
 W--> 117 Gly Glu His Xaa Ile Ser Gly Pro  
 119 20  
 127 <210> SEQ ID NO: 2  
 129 <211> LENGTH: 67  
 131 <212> TYPE: PRT  
 133 <213> ORGANISM: Echis carinatus

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137 &lt;400&gt; SEQUENCE: 2

```

139 Asn Ser Val His Pro Cys Cys Asp Pro Val Lys Cys Glu Pro Arg Glu
141 1          5          10          15
145 Gly Glu His Cys Ile Ser Gly Pro Cys Arg Asn Cys Tyr Phe Leu
147          20          25          30
151 Arg Ala Gly Thr Val Cys Lys Arg Ala Val Gly Asp Asp Val Asp Asp
153          35          40          45
157 Tyr Cys Ser Gly Ile Thr Pro Asp Cys Pro Arg Asn Arg Tyr Lys Gly
159          50          55          60
163 Lys Glu Asp
165 65

```

171 &lt;210&gt; SEQ ID NO: 3

173 &lt;211&gt; LENGTH: 67

175 &lt;212&gt; TYPE: PRT

177 &lt;213&gt; ORGANISM: Echis carinatus

181 &lt;400&gt; SEQUENCE: 3

```

183 Asn Ser Val His Pro Cys Cys Asp Pro Val Lys Cys Glu Pro Arg Glu
185 1          5          10          15
189 Gly Glu His Cys Ile Ser Gly Pro Cys Arg Asn Cys Lys Phe Leu
191          20          25          30
195 Asn Ala Gly Thr Ile Cys Lys Arg Ala Met Leu Asp Gly Leu Asn Asp
197          35          40          45
201 Tyr Cys Thr Gly Ile Ser Thr Asp Cys Pro Arg Asn Arg Tyr Lys Gly
203          50          55          60
207 Lys Glu Asp
209 65

```

215 &lt;210&gt; SEQ ID NO: 4

217 &lt;211&gt; LENGTH: 11

219 &lt;212&gt; TYPE: PRT

221 &lt;213&gt; ORGANISM: Echis carinatus

225 &lt;400&gt; SEQUENCE: 4

```

227 Lys Arg Ala Arg Gly Asp Asp Met Asp Asp Tyr
229 1          5          10

```

235 &lt;210&gt; SEQ ID NO: 5

237 &lt;211&gt; LENGTH: 11

239 &lt;212&gt; TYPE: PRT

241 &lt;213&gt; ORGANISM: Echis carinatus

245 &lt;400&gt; SEQUENCE: 5

```

247 Lys Arg Ala Val Gly Asp Asp Val Asp Asp Tyr
249 1          5          10

```

255 &lt;210&gt; SEQ ID NO: 6

257 &lt;211&gt; LENGTH: 11

259 &lt;212&gt; TYPE: PRT

261 &lt;213&gt; ORGANISM: Echis carinatus

265 &lt;400&gt; SEQUENCE: 6

```

267 Lys Arg Ala Met Leu Asp Gly Leu Asn Asp Tyr
269 1          5          10

```

275 &lt;210&gt; SEQ ID NO: 7

277 &lt;211&gt; LENGTH: 64

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```

279 <212> TYPE: PRT
281 <213> ORGANISM: Vipera lebetina
285 <400> SEQUENCE: 7
287 Asn Ser Gly Asn Pro Cys Cys Asp Pro Val Thr Cys Gln Pro Arg Arg
289   1           5           10           15
293 Gly Glu His Cys Val Ser Gly Lys Cys Arg Asn Cys Lys Phe Leu
295           20           25           30
299 Arg Ala Gly Thr Val Cys Lys Arg Ala Val Gly Asp Asp Met Asp Asp
301           35           40           45
305 Tyr Cys Thr Gly Ile Ser Ser Asp Cys Pro Arg Asn Pro Tyr Lys Asp
307   50           55           60
319 <210> SEQ ID NO: 8
321 <211> LENGTH: 49
323 <212> TYPE: PRT
325 <213> ORGANISM: Eristocophis macmahonii
329 <400> SEQUENCE: 8
331 Gln Glu Glu Pro Cys Ala Thr Gly Pro Cys Cys Arg Arg Cys Lys Phe
333   1           5           10           15
337 Lys Arg Ala Gly Lys Val Cys Arg Val Ala Arg Gly Asp Trp Asn Asp
339           20           25           30
343 Asp Tyr Cys Thr Gly Lys Ser Cys Asp Cys Pro Arg Asn Pro Trp Asn
345           35           40           45
349 Gly
357 <210> SEQ ID NO: 9
359 <211> LENGTH: 49
361 <212> TYPE: PRT
363 <213> ORGANISM: Echis carinatus
367 <400> SEQUENCE: 9
369 Glu Cys Glu Ser Gly Pro Cys Cys Arg Asn Cys Lys Phe Leu Lys Glu
371   1           5           10           15
375 Gly Thr Ile Cys Lys Arg Ala Arg Gly Asp Asp Met Asp Asp Tyr Cys
377           20           25           30
381 Asn Gly Lys Thr Cys Asp Cys Pro Arg Asn Pro His Lys Gly Pro Ala
383           35           40           45
387 Thr
395 <210> SEQ ID NO: 10
397 <211> LENGTH: 70
399 <212> TYPE: PRT
401 <213> ORGANISM: Trimeresurus flavoviridis
405 <400> SEQUENCE: 10
407 Gly Glu Glu Cys Asp Cys Gly Ser Pro Ser Asn Pro Cys Cys Asp Ala
409   1           5           10           15
413 Ala Thr Cys Lys Leu Arg Pro Gly Ala Gln Cys Ala Asp Gly Leu Cys
415           20           25           30
419 Cys Asp Gln Cys Arg Phe Lys Lys Lys Thr Gly Ile Cys Arg Ile Ala
421           35           40           45
425 Arg Gly Asp Phe Pro Asp Asp Arg Cys Thr Gly Leu Ser Asn Asp Cys
427   50           55           60
431 Pro Arg Trp Asn Asp Leu

```

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Input Set : A:\SEQUENCE LISTING6056-236.txt

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```

433 65                               70
439 <210> SEQ ID NO: 11
441 <211> LENGTH: 68
443 <212> TYPE: PRT
445 <213> ORGANISM: Calloselasma rhodostoma
449 <400> SEQUENCE: 11
451 Gly Lys Glu Cys Asp Cys Ser Ser Pro Glu Asn Pro Cys Cys Asp Asp
453   1                               5                               10                               15
457 Ala Thr Cys Lys Leu Arg Pro Gly Ala Gln Cys Gly Glu Gly Leu Cys
459           20                               25                               30
463 Cys Glu Gln Cys Lys Phe Ser Arg Ala Gly Lys Ile Cys Arg Ile Pro
465           35                               40                               45
469 Arg Gly Asp Met Pro Asp Asp Arg Cys Thr Gly Gln Ser Ala Asp Cys
471           50                               55                               60
475 Pro Arg Tyr His
477 65
483 <210> SEQ ID NO: 12
485 <211> LENGTH: 6
487 <212> TYPE: PRT
489 <213> ORGANISM: Artificial Sequence
493 <220> FEATURE:
495 <223> OTHER INFORMATION: Description of Artificial Sequence: synthetic
497 peptide
501 <400> SEQUENCE: 12
503 Gly Arg Gly Asp Ser Pro
505   1                               5
511 <210> SEQ ID NO: 13
513 <211> LENGTH: 6
515 <212> TYPE: PRT
517 <213> ORGANISM: Artificial Sequence
521 <220> FEATURE:
523 <223> OTHER INFORMATION: Description of Artificial Sequence: synthetic
525 peptide
529 <400> SEQUENCE: 13
531 Gly Arg Gly Glu Ser Pro
533   1                               5
539 <210> SEQ ID NO: 14
541 <211> LENGTH: 4
543 <212> TYPE: PRT
545 <213> ORGANISM: Artificial Sequence
549 <220> FEATURE:
551 <223> OTHER INFORMATION: Description of Artificial Sequence: synthetic
553 peptide
557 <400> SEQUENCE: 14
559 Met Leu Asp Gly
561   1
567 <210> SEQ ID NO: 15
569 <211> LENGTH: 4
571 <212> TYPE: PRT

```

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Input Set : A:\SEQUENCE LISTING6056-236.txt

Output Set: N:\CRF3\08062001\I485323.raw

```

573 <213> ORGANISM: Artificial Sequence
577 <220> FEATURE:
579 <223> OTHER INFORMATION: Description of Artificial Sequence: synthetic
581     peptide
585 <400> SEQUENCE: 15
587 Arg Gly Asp Ser
589     1
595 <210> SEQ ID NO: 16
597 <211> LENGTH: 13
599 <212> TYPE: PRT
601 <213> ORGANISM: Artificial Sequence
605 <220> FEATURE:
607 <223> OTHER INFORMATION: Description of Artificial Sequence: synthetic
609     peptide
613 <220> FEATURE:
615 <221> NAME/KEY: DISULFID
617 <222> LOCATION: (1)..(13)
621 <400> SEQUENCE: 16
623 Cys Lys Arg Ala Met Leu Ala Gly Leu Asn Asp Tyr Cys
625     1             5             10
631 <210> SEQ ID NO: 17
633 <211> LENGTH: 13
635 <212> TYPE: PRT
637 <213> ORGANISM: Artificial Sequence
641 <220> FEATURE:
643 <223> OTHER INFORMATION: Description of Artificial Sequence: synthetic
645     peptide
649 <220> FEATURE:
651 <221> NAME/KEY: DISULFID
653 <222> LOCATION: (1)..(13)
657 <400> SEQUENCE: 17
659 Cys Lys Arg Ala Met Leu Asp Gly Leu Asn Asp Tyr Cys
661     1             5             10
667 <210> SEQ ID NO: 18
669 <211> LENGTH: 5
671 <212> TYPE: PRT
673 <213> ORGANISM: Artificial Sequence
677 <220> FEATURE:
679 <223> OTHER INFORMATION: Description of Artificial Sequence: synthetic
681     peptide
685 <400> SEQUENCE: 18
687 Met Leu Asp Gly Leu
689     1             5
695 <210> SEQ ID NO: 19
697 <211> LENGTH: 67
699 <212> TYPE: PRT
701 <213> ORGANISM: Echis carinatus
705 <220> FEATURE:
707 <221> NAME/KEY: VARIANT

```

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

## VERIFICATION SUMMARY

DATE: 08/06/2001

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Input Set : A:\SEQUENCE LISTING6056-236.txt

Output Set: N:\CRF3\08062001\I485323.raw

L:23 M:270 C: Current Application Number differs, Replaced Application Number  
L:25 M:271 C: Current Filing Date differs, Replaced Current Filing Date  
L:111 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1  
L:117 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1  
L:759 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:19  
L:765 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:19  
L:771 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:19  
L:821 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:20  
L:833 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:20  
L:839 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:20